

REMARKS

Claims 12-16 and 54-60 are pending in the application.

Claims 12, 15 and 16 have been rejected under 35 U.S.C. § 112 second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Examiner states that it is not clear what a non-conjugated diene having a total of 4 carbon atoms might embrace.

Claims 12 has been amended to clarify that the at least one non-conjugated hydrocarbon diene has a total from 5 to about 18 carbon atoms. As pointed out by the Examiner, a non conjugated diene has at least 5 carbon atoms by definition. Support for this amendment is found in the disclosure on page 25, lines 16-17, where the term non-conjugated diene is mentioned.

Dependent claims 15 and 16 further define a poly(vinyl chloride)-g-non-conjugated diene composition as claimed in independent claim 12 and are clarified by the amendment made to claim 12. Removal of the 35 U.S.C. § 112 second paragraph rejections is earnestly solicited.

Claims 54-60 have been rejected under 35 U.S.C. § 112 second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Examiner states that the specification does not disclose the structure shown in claim 54 as part of a composition and is thus new matter.

The preamble of claim 54 has been amended to replace the term "composition" with --copolymer-- in order clarify that a graft copolymer is being claimed. Support for this amendment is found in the specification on at least page 25, line 7 through at least page 30, line 7 wherein it is disclosed that poly(vinyl chloride) is reacted with one of more unsaturated hydrocarbon dienes thus forming a graft copolymer. A specific graft copolymer is illustrated in the formula on page 29. Dependent claims 55-60 are rendered definite by the amendment to

independent claim 54. Removal of the 35 U.S.C. § 112, second paragraph rejection is earnestly solicited.

Claim 12 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Riou et al., U. S. Patent No. 3,330,886. The Examiner states that Riou et al. discloses a polyvinyl chloride grafted with a monomer which may include non-conjugated diene monomer such as divinyl benzene or a polyalkylene glycol dimethacrylate or allyl acrylate such as would introduce pendant allyl groups.

It is respectfully submitted that the Riou reference cannot teach or suggest independent claim 12 as amended. Claim 12 now states that the diene is a non-conjugated hydrocarbon diene. Support for the amendment is found in the specification on at least page 25, line 8. As understood by one of ordinary skill in the art, the term "hydrocarbon" refers to an organic compound consisting exclusively of the elements carbon and hydrogen.

The Riou reference relates to graft copolymers of poly(vinyl chloride) with butadiene and another, preferably acrylic, monomer, see column 1, lines 39-43. The butadiene is a conjugated diolefin and cannot anticipate independent claim 12. The acrylic monomers such as polyalkylene glycol, dimethacrylate or allyl acrylate as noted by the Examiner contain ester groups and are not hydrocarbons. The additional monomers listed in the reference in column 3, lines 19-39 also cannot anticipate the present invention as the same are not non-conjugated hydrocarbon dienes which are either linear or branched chained as claimed in independent claim 12. It is noted that the divinyl benzene cited by the Examiner is an aromatic compound and cannot anticipate the present invention. The remaining additional monomers listed in column 3 contain additional oxygen atoms, nitrogen atoms, bromine atoms, chlorine atoms, or the like. Thus, the Riou reference cannot anticipate independent claim 12.

It is respectfully submitted that the claims are in condition for allowance and a notice of such is earnestly solicited. Should the Examiner have any questions or

concerns regarding this response, a telephone call of the undersigned is greatly appreciated in order to expedite allowance of the application.

Respectfully submitted,

HUDAK, SHUNK & FARINE CO. LPA

By:


Daniel J. Hudak, Jr.

Registration No. 47,669

Tel. (330) 535-2220

FAX RECEIVED
JUN 27 2003
GROUP 1700

2020 Front Street
Suite 307
Cuyahoga Falls, OH 44221
(330) 535-2220
Attorney Docket No: EP-1021-CIP